DRIVER

DEAD MEN DON'T WEAR SEAT BELTS

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It's Spring Survival time... Again!

FIRST NEW CAR TESTS FOR 1985

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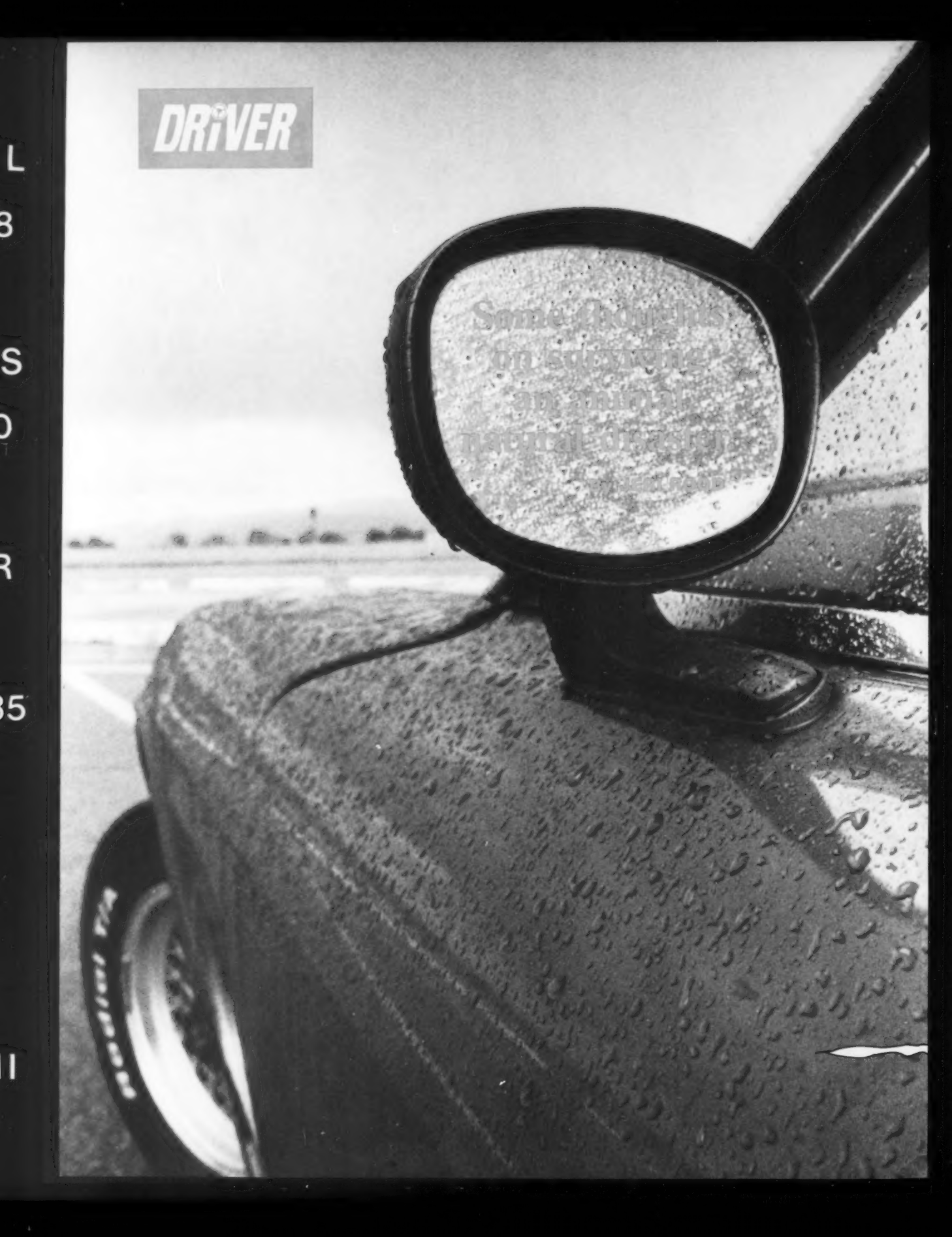
MARCH 1985


DRiVER

the SPRING SURVIVALIST

Okay, attention! I'll feed it to you straight because I know you can take it. We are expecting weather conditions of disaster proportions — rain, sleet and slush combined with periods of ice and snow. It's going to be a mess but we've just survived several months of snow and ice. I have faith in you; we can survive this too. So I want no whining from anyone about getting their feet wet and I want no excuses about "I can't drive in this kind of weather." There's nothing we can do to stop it; we're just going to meet it head-on and defeat it.

Let's not take it lightly. Last spring a lot of raw recruits went out without the proper training and drill, and their driving records didn't survive the experience. Lots of casualties — bent bumpers and crumpled fenders, wet brakes, stranded cars all over the place. And why? Because they didn't know how to handle themselves in combat situations.

Don't laugh, Pierson. It's a lot like combat out there, as you'll see. You can either listen and maybe learn something, or you can go out there and do 360s down a wet highway.

Okay, so the first thing you have to remember is who the enemy is. The enemy is water. Water is good for putting in your canteen and for soaking your feet in after a 25-mile hike, but it's lousy for driving on. It's just plain *slick*. Remember how hard it is to walk on wet surfaces and you'll get a rough idea of what the car has to contend with.

The enemy has surprise on its side —

continued

A wake like this can obscure your vision more than even a rainstorm. To avoid being drenched, don't follow too closely in a situation like this. Whether you meet this fellow coming or going the other way, be ready to hit the wiper switch.

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it can strike anywhere, at any time, in any form — but if you're expecting it, you can be prepared.

Here's the important part. There's nothing that the enemy can do to defeat you unless you help it. If you train right and have the right equipment, and if you drive prepared and careful, you'll come out on top. But if you get careless, you're going to suffer. That's what we mean by "aiding and abetting the enemy." Being careless is the same thing as joining the other side.

So what are we talking about here? *Readiness.* We need to be in a state of constant readiness. Your vehicle has to be ready to roll at all times, and you have to be in training at all times.

Your big problems will be vision and control. You need to be able to see the road and the conditions, and the enemy will try to foul that up for you. And you need to be able to control your vehicle. The enemy will do its best to interfere with you there, too. Most of the information I give will fall under one of those headings or the other.

An amphibious vehicle your car is not, even though in spring it sometimes gets treated as if it is. Guard against splashing water into the engine compartment, and against dampening the brake linings.

SALT AND BATTERY

Okay, we'll take this stuff one thing at a time. First we'll go over the equipment. If your vehicle isn't in top running order, you're going to find yourself ankle-deep in trouble in the rain sometime. Repair what needs to be repaired right now, or take it to a mechanic who can fix it if you can't do it yourself.

What should you watch out for? First, look underneath the car at the exhaust system. Between damage from all the ruts in the road last winter and corrosion from the salt they use to melt ice, your muffler and exhaust pipes might be looking like swiss cheese. If they're defective, they will leak exhaust fumes, including carbon monoxide, which can snuff you. Replace parts as necessary.

The next thing you're going to need — and need badly — are effective brakes. Check out their condition and their action. If the linings or pads are thin, reline them. Then try them out. Get on a straight, level, empty stretch of road and try the brakes. They should apply evenly on both sides of the car; adjust them if they don't. Any swerving to the left or right could set you up for an uncontrollable skid on a rainy day.

And while you're on that road, practice a little technique I call "pumping the brakes." This is the best way to get stopped quickly, smoothly and safely on a wet road. It works like this: Press your foot on the brake pedal until you feel resistance, and then let off. Press again and let off. Do it again and again until the car stops. Notice I did not say "stomp on the brakes and then let off." That's the wrong way to do it. If you floor the brake pedal, you will lock up the wheels and you will lose all steering control. Do that on a wet road and you could end up in the weeds.

If you have a front-wheel drive car, it's even more important to avoid locking the wheels. Press on the brake pedal with a slow, steady pressure, then ease off before they lock up. Repeat this until the car stops. Some people call this "squeezing" the brakes. Whether you want to call it "squeezing" or "pumping" doesn't matter; just make sure you never lock up the wheels when you are trying to stop on wet surfaces.

Now take good care of your battery because you'll need it to power the lights, the heater and the wipers. Check all the cells and if any are low, fill them with distilled water. If the battery is weak, have it charged. If it won't hold a charge, replace it. Don't trust your survival to a weak battery.

CLEANED AND TIRED

There are lots of things to check under the hood, but I'll leave those alone. You should be doing all those checks regularly anyway. One thing I will mention and that's the windshield washer reservoir. Keep that filled at all times with the right mixture of water and washer solution. That's not for cosmetics; it's for vision. If you can't see through nice, clean glass, you can't handle spring maneuvers.

But that solution is no good without good wipers. Look at the rubber blades on the wipers. If they are brittle or cracked and broken, they will do more smearing than clearing of the windshield. You need nice, soft rubber to keep the glass clean. Replace the blades when they show the first sign of streaking the glass.

Another thing, while I'm talking about seeing: Your headlights have to be in good order. Are they both working? Are they aimed correctly? Are they clean? If they are covered with even a thin film of road dirt, their light is reduced more than you might imagine.

And you have to be seen. Your survival depends in part on being visible to others. Check all your lights — the taillights, the brake lights, the turn signals and running lights, as well as the headlights — and make sure they are operating correctly.

continued

continued

Stop — do not pass. A torrent of water like this can wash your car completely off the road. Find another way around to your destination.

Now I want to switch to the subject of control, and to the most important part of controlling the car — your tires. Good tires will give you traction on all the wet road surfaces. Inadequate tires will leave you at the mercy of the enemy. It's as simple as that.

What's the difference between a good tire and an inadequate one? Tread. You need good, aggressive tread on your tires for driving on wet stuff. The reason is so you can maintain your contact with the road. That's what tread is for. The spaces in the tread give the water somewhere to go rather than building up underneath the tire to cause a wet skid or hydroplaning. That's the reason it's illegal to drive on tires with less than a sixteenth of an inch of tread — because you need the tread to drive safely on wet roads.

VISION AND CONTROL

I said it before: Your two biggest problems for surviving in spring are vision and control. Spring weather makes driving conditions that may affect one category or the other, or both.

Rain is one of those that could fit into both. Not only does rain make the roads slick but it can also make seeing difficult. Rain can fall so heavily and so fast that your wipers have trouble keeping the glass clear. Likewise, don't forget snow. The enemy might still have a few heavy snowstorms left over from winter, with dark skies and thick wet flakes. Just when you thought things were brightening up.

Another couple of leftovers from winter are slush and ice, which will also affect vehicle control. Ice in the morning could melt to slush by midday, and don't think the slush is less dangerous for control. If you drive fast enough, you can lose control on wet slush, too.

Even after the rains have stopped (for a while anyway) you still have to watch the puddles in the streets. Hitting a puddle at high speed could conceivably put you into a wet skid. And splashing the water around could obscure your vision.

Want some more vision problems? Try mist and spray from the road. This stuff is dirty, and windshield wipers alone will not get it off the glass. Be ready to hit the windshield washer to help dissolve it. By the way, this is one reason to keep the glass as clean as possible, so road spray won't stick to the windshield so easily.

Other vision problems are caused by opposite conditions — light and darkness. Of course, the dark rainy days and early

Torn rubber is one indication it's time to replace your windshield wiper blades, but don't wait until their condition gets as bad as these. An earlier clue is when they streak and smear the glass.

Watch out for low-lying areas, such as intersections, where water collects during a rain. Very deep water will cause cars to stall.

evenings during spring will make it necessary to use your headlights frequently. But your vision will suffer even on some sunny days. After a rain, the bright sunlight reflects off wet streets and puddles to create a terrible glare. This glare will be even worse on sunny days after spring snowfalls. Keep a pair of sunglasses (cheap or otherwise) handy in the car for this problem.

But these are fairly minor survival hazards compared to the serious problems of vision and control. I'll talk at more length about some of them.

A FOGGY NOTION

What's the worst possible weather situation for good vision? How about fog? Fog is strange stuff. You can drive through it like it wasn't there; it won't even slow your car down. But you can't see through it, even with our high-beam headlights on, any more than you can see through a snowbank.

Fog is just a cloud that's sitting on or near the ground. It's made up of millions

of tiny water droplets suspended in the air, and you can't see through that. Your headlights won't penetrate it, even on high beam — they will just make it look lighter. In fact your high beams can make vision worse, in this case, than the low beams. The light will reflect off the water vapor and back at you, or it can create such a bad glare that other drivers can't see because of *your* lights. (In some places, in fact, it is illegal to use high beams in the fog.)

That's the "worse case" fog. Fog varies in thickness. It can be a thin mist that doesn't interfere much with your progress, or it can be so thick that you can't see beyond your hood ornament. It is also tricky. There are swirls in the fog — one

continued

moment you have visibility for half a block and the next you can't see anything. What you do when there's fog depends on how bad it is.

If it's thin to moderate, you might be able to continue, although you should slow down a little. Use your headlights even in the daytime because they (and your taillights) will help other motorists see you. Keep your defroster on too, because moisture can collect on the inside of the windshield. This is good advice on rainy days too, by the way.

As I said, drive slowly. Road signs and markers will appear suddenly out of the fog, and you need time to react to them. Also, you might come upon curves in the road too quickly to handle them safely if you are traveling fast. Warning signs might be completely hidden in the fog, or they might appear too late for you to read them easily. Even traffic lights are hard to see during foggy conditions. Slow is best.

If it's really thick, though, your survival would be better aided by getting entirely off the road. For instance, if the fog gets so thick that you have to watch the painted lane markers out your side window, you should put off your trip until the fog lifts or at least thins somewhat. Otherwise you could blindly drive off the road, or you could bash into another car.

When you get off the road, turn off your lights. Otherwise, some driver could be using your taillights as a guide to where the road is, and he could drive off and hit you.

THE WATERSLIDE

Okay, I promised to talk about hydroplaning. None of us can walk on water, but we can drive on it if we aren't careful. That's basically what hydroplaning is, driving on top of the water. Sounds like fun, but it isn't.

What happens is this: The amount of water on the road in front of the tires gets built up faster than the weight of the car can push it out of the way through the tread grooves. The water pressure causes the car to rise up on a thin film of water. The car basically slides along. Of course, when there's no direct contact between the tires and the road, turning the wheel or using the brakes can make you totally lose control.

Any time it rains, there is a danger of

City traffic deserves even more respect when the roads are wet with rain. The closeness of the other cars makes skidding especially dangerous, and stopping distances are considerably lengthened.

hydroplaning if you drive fast enough. These are the factors.

RAIN. The more water, the more likely you are to hydroplane.

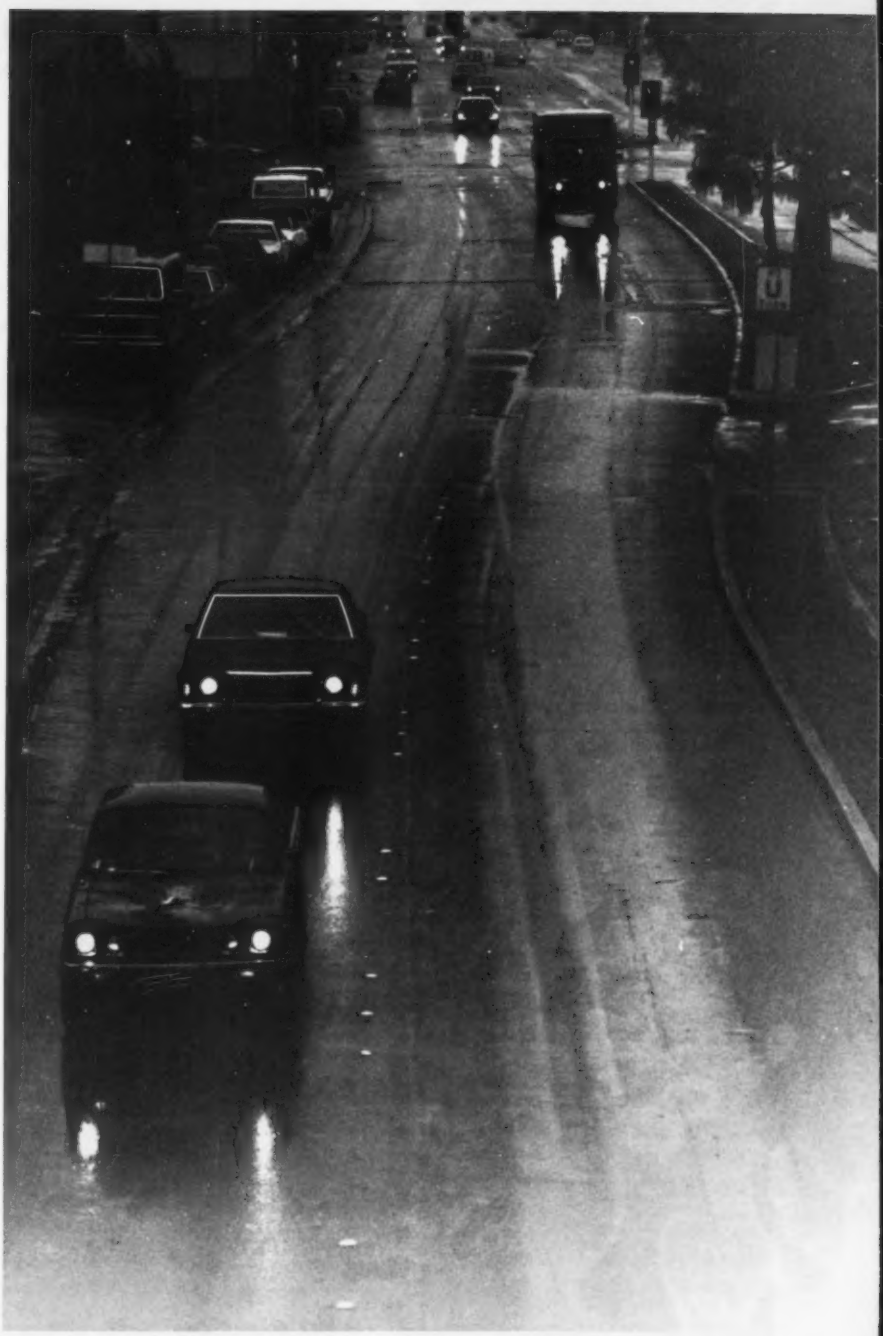
SPEED. The faster you go, the more water pressure is built up in front of the tires.

TIRE TREAD. The less tread on your tires, the less space there is for the water to flow through.

AND TIRE INFLATION. The less tread in contact with the road, the less control you have.

So the best thing you can do is prevent it happening in the first place. When it rains, keep your speed down. Always keep the tires at the proper inflation pressure, that is printed on the sidewall, to keep the maximum of tread in contact with the road at all times. And watch the condition of the tires. When they get worn down to less than one sixteenth of an inch of tread, buy new ones.

All that advice is fine, but what if you're already hydroplaning down the road? You can tell it if your speedometer shows a faster speed from the one you can see you're moving at. Well, now you're in trouble. You have to slow down and you have to keep off the brakes to do it. Braking or turning the wheel could cause a complete loss of control. Ease your foot off the accelerator until the car slows enough so that the road speed matches what you see on the speedometer. Then just continue on, but keep the speed down so it doesn't happen again.



Headlights are sometimes necessary even in daylight hours when rain falls.

SKID SURVIVAL

But more common than hydroplaning is a simple wet skid. In a skid one set of tires, usually the rear ones, gets out of line and slides to the left or right. Although it may not be so serious as hydroplaning, if you don't handle it carefully you can totally lose control. Many people threaten their own survival by panicking when they begin to skid. Then they oversteer and make the situation worse.

The first thing to remember is that skids are caused (usually) by some mistake of the driver. Either he has driven too fast, or made too quick a turn, or braked too hard. Do everything slowly and deliberately, staying alert for any squirrelly movements of the car, and skids will be much more unlikely.

Once again, however, that advice doesn't do much good when the wheels break loose on wet pavement and you're in the middle of the skid. Skids can be stopped easily and safely if you do the following.

Number one, keep your head.

Number two, ease your foot off the gas. This will decrease the speed and help you regain control.

Number three, steer the car into the skid. What this means is, the rear going out of line made the car point the wrong

continued

continued

Call it a pothole or a chuckhole, it's a health hazard for your car. Hitting one of these can damage suspension components and it can even ruin tires and wheels. Avoid potholes when you can; when you can't, drive through very slowly.

Puddles are fun for children, but not for adults in automobiles. They can cause loss of control if you go through them too fast. Remember that posted speed limits are for dry roads.

way. Steer it back in the direction you want it to go. Steer easily and smoothly, and do not oversteer. Oversteering can make the car slide in the other direction or even to fishtail back and forth. If that happens, keep steering into each skid (gently, remember) until the car is straightened out.

Number four, avoid the brakes in most cases. If you use the brakes, pump or squeeze them as I explained earlier and use them only lightly. Too much braking can cause a loss of control.

Once you have regained control of the car, follow my previous instructions to avoid another skid — that is, drive slowly and carefully on wet roads.

WET BRAKES

There's a very special control hazard I haven't mentioned yet — wet brakes. When the brake linings get damp the friction with the drums is reduced and braking force is affected, or maybe lost entirely.

This is usually a problem when you run across puddles or pools of standing water. So be careful when you run through water. Go slowly, to begin with. Not only don't you know what is at the bottom of the puddle — like a pothole — but you don't want to splash water on the brakes.

The best way to avoid dampening the brake linings is to keep one foot lightly on the brakes when you drive through deep water. This will keep enough friction between the lining and the drum to prevent wetting the brakes.

And as long as I have mentioned driving through deep water, I'll give some more advice. If the water is much above the bottom of your hubcaps, avoid driving through it. That much water can wet more than your brakes — you could give the entire engine a bath it doesn't need.

The "avoid" advice goes double for running water — I mean water that is flowing down the road or across it. Floods have currents and they can be stronger than they look. Your car is not a boat, and it won't float if it gets washed off the road.

A little earlier I mentioned potholes. These are reminders of what the force of nature can do to man's roads. When you see a pothole ahead, slow down and plan a way to avoid it. Hitting the sharp edges of these miniature craters can damage tires and rims, not to mention alignments and suspension components. Don't go into another traffic lane to get around one unless it is completely clear of traffic.

But if you must drive through a pothole, drive very slowly, to avoid the damage I just told you about.

SURVIVE!

As you can see, there's a lot to be aware of when you're trying to survive against the attack of all that water. I've done all I can do by telling you about the hazards out there. The rest you'll have to learn for yourselves by practice and drill. So hit the pavement, and be careful out there.

FIRST CRASH TEST RESULTS of 1985

VEHICLE	SPEED/WEIGHT	HIC Driver/Pass	CHEST G'S Driver/Pass	FEMUR LOADS Driver left/right	FEMUR LOADS Passenger left/right
BUICK SOMERSET REGAL 2-dr Coupe	34.5/3210	1140/595	34/35	815/400	585/315
DODGE COLT 4-dr Hatchback	34.8/2615	787/741	42/32	480/460	1090/370
DODGE LANCER 4-dr Hatchback	34.7/3250	2187/445	38/30	835/840	530/610
SUBARU DL 4-dr Sedan	35.1/2698	1361/792	57/39	716/276	622/409
MAZDA RX-7 2-dr Coupe	35.3/2873	921/1345	40/42	369/476	604/809

The first results of a crash test program involving 1985 model motor vehicles were released recently by the National Highway Traffic Safety Administration (NHTSA). The results of five crash tests are part of the federal safety agency's experimental New Car Assessment Program (NCAP). NHTSA is testing a total of 40 motor vehicles in its 1985 program.

The first results released were for the Buick Somerset Regal, a 2-door coupe; a 4-door Dodge Colt hatchback; a 4-door Dodge Lancer hatchback; a 4-door Subaru DL sedan, and a 2-door Mazda RX-7 coupe.

All the vehicles were crashed in frontal tests at 35 miles per hour into a fixed barrier. The crash tests are designed to indicate, for vehicles within the same size class, the relative level of occupant protection and vehicle safety performance This is 5 mph faster than the prescribed speed for compliance with federal motor vehicle safety standards.

NHTSA said that while the test results are indicative of relative crash protection provided to occupants wearing safety belts, it is important to emphasize that, in the government's crash test program, only one car of any given make and model is crashed in a specific test. Subsequent crash test results for any vehicle could vary because of differences in the way cars are manufactured and equipped or due to slight variations in test conditions.

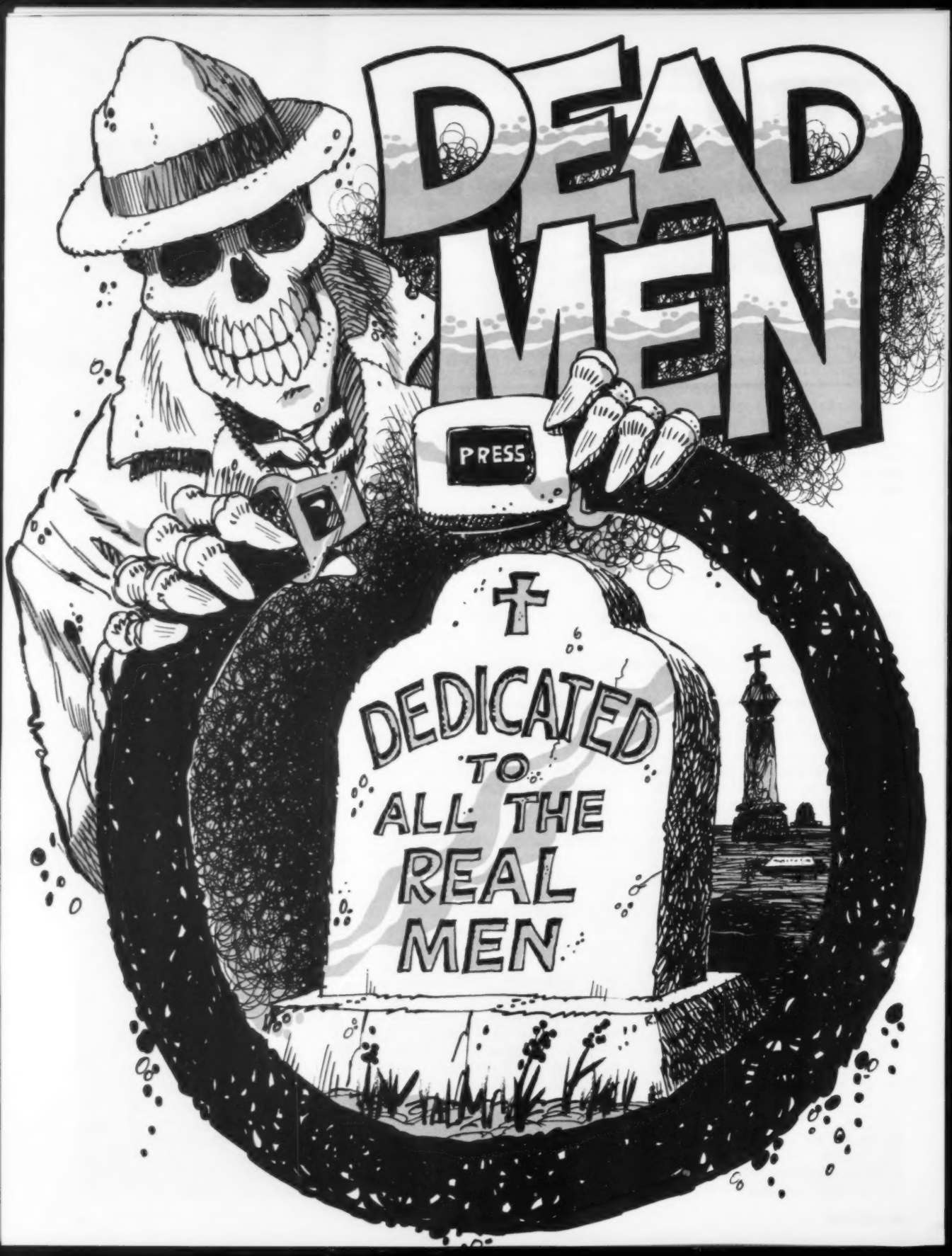
Instrumented dummies are used in all tests, and they are protected by the vehicles' standard safety belt system. The head, chest and upper legs of the dummies are equipped with instruments which monitor impact forces and accelerations. The head acceleration is used to calculate the head injury criterion (HIC), a measure of the potential for head injury.

In general, the lower the HIC, the less likely drivers and front-seat passengers would be seriously injured or killed in a frontal crash at 35 mph. A HIC value of 1000, a chest deceleration of 60 G's (G is a unit of acceleration), and femur (thigh) load of 2250 pounds indicate approximate thresholds above which serious injuries are expected.

Other aspects of safety performance also are monitored, including whether the vehicles retain the windshield during the crash, prevent intrusion of vehicle parts into the occupant compartment, and maintain the integrity of the entire fuel system to prevent leakage of fuel in a crash. All five vehicles passed all these tests.

The experimental NCAP began in 1979. The agency is continuing to examine several aspects of the program such as the variability in test results, and the relationship of these tests to real world accidents, in order to improve crashworthiness information provided to consumers.

The accompanying chart shows the test results for the five most recently tested vehicles.


DEAD MEN
PRESS
DEDICATED TO ALL THE REAL MEN

don't wear SEAT BELTS

SPECIAL THANKS
To James O'Day and Robert E. Scott,
Research Scientists
University of Michigan Transportation Research Institute
for
publishing their works in the UMTRI Research Review,
March-April 1984, Vol. 14, No. 5

I was recording the facts from a newspaper clipping about a driver surviving a bad wreck without a scratch because he was thrown clear when Halley interrupted me with: ***Garbage in; garbage out.***

CHAPTER ONE
The Confrontation

It used to be that being a private investigator was tough, dirty work. You never knew what was around the corner or who was coming through the door next. While you might trust your partner your only real friend was the Colt Python .357 magnum in your shoulder holster. And the women . . . but they are all stories in themselves.

But today things are different. I no longer have a secretary — never could keep one very long once she realized she wasn't going to get paid. She's been replaced with an answering machine. And my partner is even colder and more impersonal; my partner is a computer.

I got the machine thinking it would help me keep files straight, sort clues and do the paper work the secretary was supposed to do, but never did (or, in most cases could). You know the type: a keyboard, a couple drive units, a screen encased in white plastic and a printer.

But apparently the machine had other ideas. It doesn't really talk to me (although I talk at it), but it does display messages that it seems to generate independently.

Like this morning after I turned Halley on and watched her wade through her startup program (I started calling it a "her," why, I don't know), I opened up the background files and started to enter some information from that newspaper clipping about the bad wreck when she suddenly interrupted me with that silly ***garbage*** line.

I key-stroked in, "What do you mean?"

She replied: ***If you continue to feed me garbage for background, I am going to continue to provide garbage answers when you ask me to sort it out.***

Halley wasn't one to try and charm me; but then I'm not noted for my tact, either.

"Are you referring to people surviving accidents because they were thrown clear?" I asked.

Y she answered, meaning "yes."

"It happens; I don't make these things up," I replied. "I've got the newspaper clipping right here."

Exactly, Halley stated. ***Such events are so rare that they are reported in the media.***

"Meaning what?" I came back.

Meaning that you humans want to hear that people sometimes escape the awful consequences of dangerous crashes by luck alone.

"But we do."

Rarely. That's what makes it news: that it rarely happens.

"It happened to Sam a lot," I noted.

Sam who?

"Sam was my partner before you."

Sam? Let me check my files. Would he be active or archived?

"Archived," I replied, knowing that Halley had a hard time understanding 'dead.'

Y, here he is. Y, he did have a lot of accidents he survived. Looks like he was always running into somebody, being run into by somebody or being forced off the road.

continued

Halley interrupted me with: Garbage in; garbage out.

"It's a rough business, sweetheart. He was a real man."

I can see that. It says here that when he was forced to eat quiche he wolfed it down so fast that it burned his entire mouth.

Halley was trying to get my goat.

"Don't change the subject," I typed in. "Sam was a real man and he didn't wear seat belts and survived plenty of crashes."

Such as the one where his pick-up started rolling over and over.

"Yeh," I recalled. "That's the one where he was forced off the road by an unmarked tanker truck he was tailing."

And he was thrown out and then scooped up in the bed of the pickup each time it rolled only to be thrown back out as the truck went over again.

"That's a good example."

Until the last time he was tossed out and instead of being scooped up by the bed was pinned under the cab.

"Yes, but that was the last roll and the cab only came to a rest on his leg; didn't even break it."

Lucky.

"Yeh, if he'd been wearing a seat belt he could've been killed."

Not really. At the speed of that accident if he'd been buckled in all he'd have gotten would have been some bruises from the belts. Instead he was black and blue from head to foot for the next six weeks.

"Getting beat up's part of the job. Besides he might have been trapped in the cab and it could have caught fire or gone into the water.

You actually believe that using a seat belt is more dangerous than not using one?

"In my business it could be."

And you fear that using a seat belt increases the chances of being trapped in a car that has caught on fire or been submerged in water.

"I'm not afraid of anything," I pounded out on the keyboard. "I just don't like the idea of coming to inside a ball of fire or under water."

CHAPTER TWO
The Knock Out

Then the problem is being knocked unconscious, appeared on the computer's screen.

"Being knocked out gives me a bigger headache than a power surge does you," I replied with the keyboard.

Careful, Halley came back. ***While you have been stroking my keys, I have been analyzing hundreds of thousands of auto accident cases.***

"Am I supposed to be impressed?" I asked.

You don't want me to answer that.

"OK, smart aleck; what have you come up with in your simple binary 'mind'?" I banged out on the keys.

Among over 1,186,000 occupants in passenger car accidents using seat belts, 99.45 percent were conscious after the accident; among over 8,548,000 occupants not using seat belts in passenger car accidents, 98.67 percent were conscious after the accident.

"That's not too many, is it?

Not stated that way it is not. It is only 0.527 percent of occupants who were using seat belts were unconscious. In contrast, 1.28 percent of all occupants not using seat belts were unconscious after the accident.

"Stop playing number games."

OK, how about something even you can understand?

I stroked the keys, "I'm not sure you can reach that level." I knew I could always down-power her.

Let us say there are two bodyguards protecting different approaches to the same target. Both are armed with submachineguns. The first has a Uzi, but is not the best shot in the world. He can only hit his target once for every 190 rounds he fires. The second guard has an Ingram M11 and is a much better shot; he hits his target with every 78th round. Which would you rather face?

With the pain of old bullet wounds popping fresh into my mind I typed out, "I'd take out the clown with the Uzi, of course. I've been shot at and missed plenty, but it's better than being shot and hit any day."

Those are the same odds for being unconscious after an auto accident. One in every 190 who are wearing seat belts are unconscious after the accident, while one in every 78 who are not wearing belts are unconscious afterwards.

"Being knocked out after an accident is one thing," I tried to remind the machine, "but ending up dead because of it is something else."

You are right. Among the over 8,548,000 occupants not using seat belts in passenger car accidents 4,274 or 0.05 percent were killed. Of the 1,186,000 who used belts, 316 or 0.027 percent were killed.

"You lied to me," I typed angrily. "You always said, 'Dead men don't wear seat belts.' Yet your facts show that 316 of them did!"

You missed the point.

"What was the **point?"**

That the fatally injured rate among unbelted occupants was almost twice as large as the percentage of belted people who were fatally injured.

CHAPTER THREE
The Toss Out

"But you can get killed belted into a car," I stroked on the keyboard of my computer Halley. "At least when you're thrown out you've got a chance of landing on your feet."

Have you been drinking, again? appeared on the upper right of my screen and worked its way to the left.

"You always said," I typed in with three fingers, " 'Dead men don't wear seat belts.' "

"When did I stop?" I replied.

That was a rhetorical question, the machine answered.

"Don't try to change the subject, you know that getting tossed out of a crashing car is safer than being trapped inside it."

Actually my analyses of 425,000 accident cases shows that about one percent of all occupants are ejected from vehicles, and . . .

"They survived without a scratch or minor bruises," I interrupted Halley.

Not even close. About 20 to 30 percent of all ejected occupants received fatal injuries.

"Which are a lot better percentages than those who were trapped inside," I inserted.

Wrong again. Only 0.5 percent of all occupants who remained inside their cars were fatally injured. That makes the fatality rate 40 to 52 times as great for ejected occupants as for nonejected occupants.

continued

Only 0.527 percent of occupants who were using seat belts were unconscious.

"Your half a mill cases must have all been accidents where the car suddenly stopped or was crushed when colliding with a wall so that those who were thrown clear couldn't get to their feet in time."

Forget the drinking; you have been smoking something funny, have you not?

"I don't do that!" This machine knew how to get to me.

Back to the subject. Cases involving ejection of an occupant are more often accidents in which the vehicle experiences an oblique impact or runs off the road into rough terrain, with rollover or somersaulting motions. These often result in an occupant's being thrown out a door or window, with head, neck and spinal injuries.

"Yeh," I recalled, "that's how Lou bought it. But he always wore seat belts."

Who's Lou?

"My partner before Sam."

Y, I have found him now. Of the 425,000 accident cases he is the only seat belt user to be ejected.

"See, seat belts kill." I was proud of myself for knowing more than the machine.

Not in this case. His car was so old and rusty that the bolts anchoring the seat belt pulled through the floor. So the effect was the same as not having them.

"Your figures don't mean anything," I beat on the keys. "I'll bet that in crashes where everything is equal — you know, force, direction of impact, all that stuff — those that get thrown clear are better off."

You never give up. In 98 special cases examined in which the only two occupants — driver and front seat passenger — were involved in the same crash force, none of the belted occupants were ejected. Among the 98 non-restrained occupants who were thrown from the car, 21 died of their injuries. Among the 98 occupants who remained in the car, none died of his/her injuries.

CHAPTER FOUR
The Burn Out

"I still think getting thrown clear is better than coming to in a burning car." I continued to argue with the computer, even though I knew I know what I know. "That's how Fillup went."

What's a fillup and where did it go? Appeared on the screen.

"Sorry," I typed back. "He used to get mad when I spelled his name that way. Philip was my partner before Lou and he went to his reward in a car fire after an accident."

Your partner aside, car fires don't happen that often.

"I've got you on that one. I see them

all the time on TV."

You've been watching too much television. Those crash and burn accidents are rigged for effect.

"On the news?"

Again, it rarely happens, therefore it is news when it does.

"Don't tell me"; I stroked the keys without thinking, "you've got facts to back all this up."

The screen remained blank for a long time. Finally, I typed in "Halley."

She answered, ***Y.***

I asked, "Are you going to give me the facts about car crash fires?"

You said 'Don't tell me,' she replied. ***So I didn't.***

I'd cooled down while waiting, so I softly stroked in, "Please recall the facts about car fires."

In a review of fatal accidents in 1981, fatally injured passenger car occupants totaled 26,405. Among these, 951 or 3.6 percent, received fatal injuries in accidents in which a fire occurred in the involved car.

I again waited a long time before asking, "Is that all?"

I am still busy searching, Halley replied.

There was a short pause and then, ***The records do not provide sufficient data on how many of the 951 died as a direct result of the vehicle fire, and how many died from crash injuries unrelated to the vehicle fire.***

"OK, so maybe there aren't that many crashes that involved fires. But I still wouldn't want to be trapped by a seat belt in a burning car."

Only 2 percent of the 951 occupants of vehicles that experienced fire were using seat belts. That compares with a rate of 2.5 percent of all of the 25,454 fatally injured occupants in accidents not involving vehicle fire.

"So what?" I asked the machine.

So, the difference in those two percentages offers some slight indirect evidence that use of seat belts helps occupants remain conscious and better able to remove themselves from vehicles that are leaking gasoline or have begun to burn.

CHAPTER FIVE
The Drowned Out

"What about Miles?" I asked the computer. "He went down with his car."

Miles? Down to where? she asked me.

"Miles; my partner before Philip," I hammered at the keys. "And it's 'down with his car' like a captain goes down with his ship."

But down where?

I was at the point of losing my temper when I remembered that computers are really simple machines that just process negative and positive charges extremely fast. So I entered, "Down to the bottom of the bay. He drowned."

Y. Immersions: Fatal accidents in which the passenger car has been immersed (submerged) in water are infrequent.

"Cut the formal krap," I commanded Halley.

In a review of 26,405 total passenger car occupants fatally injured in 1981, 364 of them (1.4 percent) were in cars reported to have been immersed.

At this point I jumped in with all three of my typing fingers and punched out, "Yeh, and they were all trapped in their cars by their seat belts." I knew I had her this time.

Only five of the 364 immersions fatalities were using seat belts, compared to 523 seat belt users among the total of 26,307 non-immersion fatalities.

"I suppose you have percentages to go with those numbers," I asked.

Not understanding sarcasm, Halley answered, ***That's 1.37 percent of the fatal immersions were using seat belts compared to 2 percent seat belt users of the total non-immersion fatalities.***

I was getting bored with all this when I asked, "Can you draw any conclusions from this information?"

As with fire-associated fatalities, immersion-associated fatalities include a significantly lower percentage of seat belt users than is evident among the total population of fatally injured occupants..

continued

"See, seat belts kill."

I pulled the gun back from the screen, lowered the hammer and reset the safety.

CHAPTER SIX
Seeing Out

Suddenly an idea came to me that I knew I could use to confuse this computer. I thought for some time about it — wanting to word the question just right — before asking, "If only about 11 percent of the people wear safety belts, why are there so few belt wearers among your accident figures?"

I knew I had Halley. I just knew I had her. And I was sure I had her when she tried to stall me with ***Have you been playing in the nose candy, again?*** The longer she spent searching for the answer, the more confident I became.

Drivers who always wear seat belts tend to drive more cautiously than those who do not wear seat belts. Seat belt users tend to be involved in fewer accidents, and to be involved in less severe accidents, than drivers who do not wear seat belts at all. Thus, at least part of the difference in the fatal injury rates can be attributed to differences in the severity of the crashes involving the belted and unbelted occupants.

I'm not really sure what happened next or why. But I pulled out my .357, spun the cylinder, released the safety and pointed it at Halley. Realizing that she couldn't "see" what I was doing I decided I should tell her.

"I'm going to delete you completely with a .357 slug down through your display unit, terminal and disk drive," I calmly typed in on the key board.

DELETING THIS UNIT FROM THE UNIVERSE — Are you really sure? (Type Y or N) appeared on the screen.

I was sorry I couldn't watch her sweat as I put the muzzle to the top of the unit and typed, "Y."

Of course, you all know that computers don't sweat and waiting games with such cool customers can be hard on the nerves of both parties. I had pushed the bet up and Halley raised it again with, ***Unit will be destroyed: pull the TRIGGER to DESTROY, else RED.***

I began to sweat when I realized how much credit it would take to replace Halley. Besides, she was just doing her job as she saw it. I pressed "RED."

I pulled the gun back from the screen, lowered the hammer and reset the safety.

Halley, as cool, calm and collected as ever, came on the screen with ***I think you just proved that standing on the business end of your gun is safer than riding unbelted with you at any speed.***

While I probably agree with her, I pulled her power plug anyway. I don't like being talked to that way.

Marines Sharpen Driving Skills

A one-eighth-mile driving response course allows students in the Louisiana State Police Academy defensive drivers course to test their prowess behind the wheel.

by Sgt. TIM SHEARER, USMC
New Orleans, Louisiana
(USMC photos by author)

Six 4th Marine Division/Wing Team leathernecks died last year in traffic accidents. Another was totally disabled for life.

With these seven Marines in mind, the 4th MAW Ground Safety Office is now sending Marines from commands in the area through defensive drivers training at the Louisiana State Police Academy at Baton Rouge. It's five days of training that could save lives.

"We have a 1985 goal of reducing traffic accidents and related incidents by 50 percent," said Gunnery Sergeant Joseph Maist, ground safety noncommissioned officer-in-charge. "Driving safety is an area that needs attention, especially since our only fatalities last year were on the highways."

According to Maist, most of the Marines here are good, conscientious drivers. "We estimate that 60 percent to 70 percent of Wing drivers use seat belts," said Maist. "The national average is 12 to 15 percent. As with the national average, though, most accidents involve drivers under 26 years of age."

These are the ones targeted for the course.

The first group of Marines went through the course from March 4-7. They were side-by-side with future Louisiana police officers, studying a syllabus put together by years of study and driving experience.

The class they went through was condensed to four days. Marines will be sent on a quarterly basis.

"We spent Monday and Tuesday in the classrooms studying books and watching movies," said Corporal William B. Rothermel, 8th Marine Corps District. "That prepared us for Wednesday when we got behind the wheel on the driving course to see how defensive driving works."

The driving portion of the course was the most challenging part for the Marines. A one-eighth-mile stretch of runway at the municipal airport was converted into a maze of twisting curves where the students discovered their driving ability.

Corporal Rudy Lurding (behind wheel) and Sergeant Scott Anderson wait to take a Louisiana State Police car through the driving course.

The defensive drivers course has been going on in Baton Rouge for the past four years. "Every driver on the road should get the chance to go through such a course," commented Reggie Fleming, a trooper and instructor with the state police. "It's better to find out our abilities and limitations on a driving course than on the highways. Since the school has been going on, the number of accidents among state troopers has gone down."

As the five Marines sped around the traffic cones, they burnt some tire-rubber off the state police cars and discovered how proper braking and planning improve abilities. "I was surprised at how much more control you can have by driving right," said Sgt. Mike Merrick, Marine Air Group-46, Naval Air Station, Belle Chase. "There are a lot of simple, common sense techniques that most people never consider, but could save a lot of problems on the road."

Fleming emphasized the importance of driving by saying, "A police officer drives every day of his life, but he only uses his pistol once in 20 years."

This holds importance for the Marines who attended the course also. "Most people drive every day of their lives and we want to spread the idea of being safe while you do it," said Maist.

This is the eighth in a series of articles about driving conditions at Air Training Command bases.

by SGT. RICH TILLMAN
Reese Air Force Base, Texas
USAF photos
by A1C KENDAL W. CARLSON

West Texas Driving;

A UNIQUE CHALLENGE

Blowing tumbleweeds and blankets of dust make driving at Reese uniquely challenging to experienced and inexperienced drivers alike.

Tumbleweeds, which can grow to enormous size, and high West Texas winds combine frequently in the spring to make driving still more dangerous, especially to the smaller vehicle driver. Driving at Reese is a "100 percent full time job; not a part-time job," say 64th Flying Training Wing Safety officials.

Weather is not the only hazard drivers encounter at Reese. There are the groups of student pilots walking in staggered progression to and from the flying squadrons along Hangerline Road. Alert drivers soon learn that two of the base's major traffic routes are one-way streets, as are the majority of on-base parking lots.

Wing leaders rigidly enforce Air Force seat belt use guidelines and posted speed limits, which range from 5-30 mph.

Drivers must not only buckle up per Air Force and wing requirements but must obey recent changes to Texas law which now penalize those who do not buckle up children under four years old or weighing less than 40 pounds. Wing members are required to conform to the state law. For infants and toddlers the law requires that they be secured in a child safety seat, too. To ensure conformance with these requirements, wing safety officials periodically perform spot seat belt checks at various locations around Reese.

Since the base is relatively small, it is common for workers and student pilots to walk to and from their appointments, meetings and classes. With all those people walking, the 64th Security Police Squadron patrolmen closely monitor the 20 mph driving speed in the main area of the base.

Many Reese drivers find an occasional

(left)
Blowing tumbleweeds are caught against the barbed wire fence which runs along Reese's southern boundary, U.S. Highway 116. Eventually, the tumbleweeds will build into a wall, which other tumble weeds will roll over into the path of on-coming highway traffic.

Traffic patterns at Reese's main gate sprout in every direction, which makes it the most dangerous intersection on base, say wing safety officials. "It's not that confusing, but we Reese drivers sure make it that way," adds Occupational Safety and Health Specialist Henry A. Ussery.

need to drive through Reese Village, the base's government family quarters. It's here drivers need to be at their driving best.

Safety officials express concern that in the past two years, two children have been hit in the Village by moving vehicles. Reese safety officials continue to emphasize driving safety and alertness in the housing area. With the small number of family housing units here and the restricted 15 mph speed limit, Children should not be getting hit, they add.

The Reese speed limit along perimeter road increases to 30 mph, while it drops to 5 mph for flightline-authorized driving around the wing's T-37 and T-38 fleets. Those same aircraft are occasionally grounded due to high winds, which poses another driving challenge.

With all the West Texas agriculture surrounding Reese, a calm spring day can turn dusty brown at just the hint of wind. That wind also creates "dust devils," miniature tornadoes which pick up bits of paper and foliage to throw into and in front of driver's views.

West Texas winter weather is almost as unpredictable. Sudden snow, sleet, freezing rains, and the icy roads that develop, turn driving conditions on and off base to anything but desirable. The winter can be really harsh on completing mission requirements since the civilian work force and almost half the military workers live in Lubbock, Texas, and surrounding communities. West Texans are not traditionally prepared to drive in such snowy slick conditions, nor are the local communities readily prepared for clearing traffic routes.

West Texans are not alone in their lack of icy driving experience; many of the military force are either inexperienced or have taken driving conditions for granted since the region is more dry than wet. The results can be devastating.

Reese is located approximately six miles west of Lubbock and is accessible from U.S. Highway 116, better known to base drivers as the Levelland Highway or 19th Street, and Farm to Market Road 2255, better known as 4th Street. The two gates onto the base are located on Spur 309, which crosses both FM 2255 and Highway 116.

West Texas tumbleweeds seem larger than life once they begin blowing into drivers' vehicles on and off the local roads and highways. While the tumbleweeds here have been stopped by this jeep, smaller vehicle owners must drive with care in the high West Texas wind, which tends to add force to car versus tumbleweed impact.

Buckling up — it's the first step in the driving process at Reese. Seat belts increase one's chances for survival in a motor vehicle accident by 50-65 percent, said Ground Safety Technician SSgt. Ricky Pope. In 1984, the safety division's spot seat belt checks revealed that 90 percent of Reese's population actively support the use of seat belts.

Timely Topics

SUGAR RAY LEONARD JOINS "SAVED BY THE BELT CLUB"

Former welterweight boxing champion Sugar Ray Leonard avoided serious injury in a two-vehicle crash last January because he wore his safety belt.

Leonard received the American Seat Belt Council's "Saved by the Belt Club" award at a ceremony at the Department of Transportation. Membership in the Club is awarded to motorists whose use of safety belts prevented them from being seriously or fatally injured in a car crash.

Leonard suffered injuries in an accident on the evening of Jan. 2, 1985, when a pickup truck struck his jeep broadside at an intersection in Beltsville, Md. The champion boxer, who was riding alone, suffered minor injuries as a result of his accident.

According to DOT's National Highway Traffic Safety Administration, almost 23,000 passenger car occupants were killed in traffic accidents in 1983. At least half of these victims would have survived if they had been wearing their safety belts.

SELF-SERVICE GASOLINE BUYERS NOT CHECKING

A survey by AAA-Ohio Motorists Association reveals drivers are saving money on gasoline purchases but may be creating future problems for themselves by neglecting important vehicle checks. Of 200 automobiles in the survey: 45 percent were low on coolant, 51 percent were low on oil, 39 percent had low or corroded batteries, and 12 percent had unsound hoses.

USE OF CHILD RESTRAINTS DO PREVENT DEATHS

A study published in the Journal of the American Medical Association shows that the use of restraint devices virtually eliminates the risk of death in automobile accidents for children four years old and younger. Additionally, the study says that requiring older children to wear safety belts would lessen the severity of their injuries in accidents and save millions of dollars in medical costs. Based on accident reports for 1982 and 1983 in Tennessee, the first state to enact a child restraint use law, researchers estimate that only 30 percent of children traveling in cars were in restraint devices. Of the 81 children who died in car accidents in the state since the law was passed in 1978, only two were strapped into such devices. None of the 17 children killed in 1982 and 1983 accidents were in restraint devices. A Tennessee health official called restraint laws the most practical approach to immunizing children against their leading killer.

USED CAR STICKERS

The Federal Trade Commission has approved a used-car rule requiring dealers to put window stickers on used cars giving warranty and other consumer information. The rule, which goes into effect May of 1985, must include an indication of any warranty offered with the car, and a statement that the car is being sold as is if no warranty is offered. The sticker cautions consumers to get all oral promises made by the seller in writing, suggests consumers have the car inspected before purchasing and lists some major defects that can occur in used cars. The sticker also gives information about service contracts. The used-car rule eliminates an earlier requirement that information on the known mechanical defects of the car be included on its sticker.

EIGHT TIRES BETTER THAN FOUR?

Instead of driving on four wide tires, your car may some day ride on eight skinny tires paired up two-to-a-wheel like truck tires. Goodyear Tire and Rubber Company has been testing the thin tires and is already planning to market the paired tire system in Europe. Testing has shown the following advantages to the thin, paired tires: Protection against loss of control when a single tire goes flat, reduced risk of hydroplaning, better traction, better braking and reduced running tire temperatures.

AUTO THEFT UP

A new study prepared for the U.S. Justice Department attributes the tenfold increase of automobile theft over the past ten years to the growing involvement of professional thieves. The study, "Vehicle Theft Prevention Strategies," compiled by the National Institute of Justice, found the problem of auto theft has grown from a $140 million crime in 1970 to $14.6 billion in losses today. The study recommends legislation to provide better vehicle documentation and states car owners must take more responsibility for curbing auto theft. It reports that in four out of five cases of theft, owners left doors unlocked and in one of five cases the keys were left in the ignition.

41 STATES TO CONSIDER SEAT BELT LAWS THIS YEAR

Following the passage of seat belt use laws in Illinois, New Jersey, and New York in 1984, 41 states and the District of Columbia are expected to consider similar laws this year, according to the Highway Users Federation's annual state legislative forecast.

Only the legislatures of Hawaii, Kentucky (which has no legislative session this year), Nevada, South Carolina, Utah, and Wyoming are not expected to take up the issue of seat belt laws in 1985.

Chances of belt use law passage appear good in Connecticut, Louisiana, Michigan, Minnesota, Missouri, Oregon, Rhode Island, Texas, and Washington, according to a survey of the Federation's regional directors located throughout the country.

The Illinois seat belt law, which allows a $25 fine, takes effect July 1; New Jersey's law, with a $20 fine, takes effect March 1; and New York's law, allowing fines of up to $50, took effect January 1. All apply to the driver and front seat passengers, with New York's law also requiring that children four to ten years old seated in the back wear seat belts.

Infants and small children are required to be placed in approved auto safety seats in every state except Wyoming, which will consider a child restraint law in 1985. Measures to strengthen existing child restraint laws will be proposed in 15 other states.

The Federation's regional staff based its forecast for 1985 state legislative activity on discussions with state transportation officials and state association members, press reports, governors' messages, and pre-filed bills.

ONE SIMPLE FACT:

SEAT BELTS WORK!

by
SSgt. ALLEN L. GREINER
Keesler Air Force Base, Mississippi

Do you ever imagine, before you begin a trip, just what you will do should you have a serious accident? You really never know just what kind of unexpected event could come up to ruin a trip. This is a true account of just such an event and accounting of the lasting repercussions that follow.

It had not been very long since I had gone to the dealer, check in hand, and accepted my new pickup truck. It was loaded and had all of the features that I really wanted: cruise control, air conditioning, crew cab, real bucket seats upholstered in velour, power everything . . . you name it! I had planned out the whole purchase, intending to customize the truck to the hilt. My first step was the camper top dealer, where I blew about a thousand for a bed liner and fiberglass top, color coordinated with the rest of the truck by the manufacturer. This was followed by another trip to the truck dealer. This time for the installation of a sliding glass rear window, blacked out trim, and a set of massive tubular steel bumpers. Then on to the stereo dealer and the installation of the most inspiring sound system I could find. And then, last but not least, a cruise to the customizing shop for a prime stripe job and a set of mag wheels. By the end of the month, I had spent just over $11,000 and had a boulevard cruiser par excellence!

Thus, it was two-and-a-half months and 2,000 miles later that I loaded up the truck with suitcase, coolers, kids, and wife and started on the thousand mile trek back to my hometown to attend my high school five-year reunion. We had planned well for the trip, even to the point of buying new infant safety seats for the kids. I spent an entire day bolting the safety straps into the frame of the truck by drilling into it, and carefully and diligently ensuring that it held up to stress. I look back now and thank God for the care that I took to ensure that the children were safe and snug.

The trip, for the most was uneventful, full of endless driving, frequent diaper and bottle stops, and the occasional laughter brought on by listening to the truckers as they harass the "smokies" on the CB. We stopped near St. Louis for the night and started again late the next morning with 600 miles to go. My wife and I traded off on the driving, and we made several stops along the way to eat, let the kids run, and just to enjoy the trip. It was approximately 11:00 at night, 15 miles from our destination, that the disaster struck.

We were on a four-lane interstate highway, headed North, when I was momentarily blinded by a southbound car with its high beams on. I looked to the side until the car passed and on looking back up the road, saw a horse crossing the road going west about 50 yards in front of me! I slammed on the brakes and steered to the right. On hearing me brake, the horse bolted back the way he had come, directly into the path of my truck. I started to turn the wheel to the left, felt the tires begin to break loose, and returned the wheels straight ahead, bracing myself for the collision. My wife, in the passenger seat, was dozing. She remembers waking up upon hearing the brakes lock and hearing me yell, "#?# $$#?#, a horse!" and bracing for whatever happened next.

At 50 miles per hour, the truck hit the horse broadside and killed it instantly. The horse rolled up, over the hood, and struck the top righthand side of the cab. En route it wrapped the radiator around the engine, broke the engine mounts, buckled the manifold into a "Z" bend, and permanently jammed the transmission into the drive shaft. The hood bent in the middle on impact and slammed into the windshield. According to the investigation it was the most critical item in saving everyone in the truck from decapitation. The right side of the cab roof was crushed in approximately 18 inches. The horse continued on back to strike the camper top hard enough to rip it open and shear most of the bolts holding it to the truck. The truck continued on until it stopped on the roadside, clear of traffic.

The occupants? Dazed, shaken, but for the most part, unhurt. My wife had hit her knee on the console and it hurt her severely. I had hit my leg on the shift lever and it was scraped. We both had bad backaches and felt sore all over. Our youngest, at 13 months, had spit up some of his supper, but was otherwise unhurt. Our other child, 3 years old, had slept through the entire experience and was still gently snoring as though nothing had happened. Everyone had been securely fastened into the truck and successfully rode out the fury of the impact.

It has taken two years since the accident to resolve the associated legal battle. Adding the cost of airline tickets to bring my family and me home after the accident, two trips to Illinois to appear in court, and an additional trip to pick up my truck after it had been repaired, all the legal fees, rental costs, and insurance deductibles, the accident cost me approximately $7,000. When you also consider the mental anguish and memories associated with the accident you can see that we paid a high price for a ruined vacation.

The final verdict of the court was that the owner of the horse was guilty of neglect. However, he declared bankruptcy and defaulted on the award from the court.

The bottom line of this story, however, is the simple fact that I'd not be relating this story to you except that SEAT BELTS WORK.

TRUE ACCIDENTS

Following are a few reports of accidents involving Air Force members. We have removed names and references to dates and places.

WHITE-OUT

An airman on leave was making a journey of about 800 miles in the middle of winter. He had already been on the road about 12 hours, and was still 100 miles from his destination, when he stopped at a mountain resort for a meal. At 0530, as he tried to get back on the highway after eating, he ran into a white-out condition and hit a patch of ice. His car skidded off the road and hit a snow bank on the left shoulder of the interstate. The airman got out of his car to try to dig it out. He was on the passenger side trying to clear the snow off the windshield. A semi pulling a double trailer hit the same patch of ice and slid off the road, hitting the airman and his car. The airman received a permanent total disability.

RAIN

A lieutenant was riding his motorcycle in the rain at about 0345 on a six-lane divided highway. He stopped under an overpass, apparently for shelter from the rain while putting on coverall rain gear. He was hit from behind by another vehicle. A witness who arrived shortly after the mishap saw a small pickup stopped near the scene, but it drove away when he approached it. The lieutenant was found 10 feet from the first scuff marks of the collision, and the cycle was found nearly 300 feet away. At the hospital he was pronounced dead on arrival from massive injuries to the upper body.

VIEW HIDDEN

A sergeant was driving about five miles from base. She was driving at the speed limit (45 mph) in the center lane of the divided four lane road, slightly behind a furniture truck in the right lane. As the truck began a right turn, it hid her car from the view of a truck driver at a stop sign on the side street. He drove his truck into her path. She had no time to avoid the truck and she hit it broadside. The car was totaled, but the sergeant received only bruises to her forehead and nose because she had worn her seatbelt and shoulder harness.

HEAD-ON

Five Air Force personnel and a child were in one car driving south on a highway. There were three airmen and a couple (both sergeants), with their four-year old daughter. The drive attempted to make a turn onto another street and his car collided head-on with a northbound pickup truck that was trying to make a turn onto that same street. The driver, another airman and the child were killed, as was the pickup driver. The two sergeants were treated at the hospital and released. The third airman remained in serious condition.

LOOKED AWAY

An airman was driving south through a city in the right lane of an interstate highway at about 1430. The car ahead of him was traveling about 55 mph, and he was traveling about 70 mph, according to witnesses in a car behind him. They saw him reach down, apparently to get something on the seat or the floor. When he looked up he saw he was so close to the car ahead that he had to swerve sharply to the left to avoid a rearend collision. His car lost traction and slid broadside to the road, across three southbound lanes, and struck a series of bushes in the median. The car overturned and rolled several times, and the airman was ejected through the windshield, receiving a fractured skull. He died at the hospital at 1805.

BLOW-OUT

Two airmen were traveling north on a highway headed out of state. About 10 miles from the state line, the right rear tire of the car blew out. The driver tried to regain control but he overcorrected and the car ran off the road and rolled several times. The passenger was thrown out of the car. He was pronounced dead at the scene. The driver was hospitalized with minor injuries.

POTHOLE

An airman was riding his motorcycle on a two-lane street near his overseas base. As he was traveling westbound, an eastbound foreign national swerved his vehicle around a large pothole and collided with the airman head-on. The airman was thrown from the motorcycle, receiving injuries to his head, both arms and both legs. He died in the medical center about two hours later.

UNSAFE PASS

A sergeant was riding his motorcycle north on a state road when he came upon two slow moving vehicles, a dump truck and a farm vehicle. Both were towing trailers. The sergeant accelerated and started to pass the second vehicle when the first vehicle, the dump truck, made a left turn into a private drive. He applied the motorcycle's brakes but was unable to stop. He skidded 136 feet and hit the trailer being pulled by the dump truck. He received a permanent total disability.

PUPPIES

A sergeant and his wife were on leave, driving their pickup around the neighborhood delivering puppies to friends. The wife was driving and the sergeant was a passenger. The puppies became restless and noisy, so the sergeant got out and climbed into the truck bed with them to calm them down. He was sitting on the lowered tailgate of the pickup as they traveled down a two-lane, undivided highway with a gravel shoulder. At one point the driver pulled onto the right shoulder to make a turn into a driveway. A van following them slowed to allow them to turn. A semi was following too closely behind the van, and its driver's view was partially obscured by the van. The semi driver swerved to the right onto the gravel shoulder to avoid rearending the van. The semi hit the tailgate of the truck and the sergeant, throwing him 50 feet into an adjacent field. He was killed. His wife, who was not wearing her seatbelt, received minor injuries.

ALCOHOL

At 2345 an airman was driving back to his overseas base on a two-lane highway, with traffic traveling to the left. The airman had a right-hand-drive car. While rounding a right bend in the road, his car went onto the left shoulder and went into a 45-degree left hand skid. He went across the road and hit a guardrail and then a concrete bridge pillar. The car came to rest in the left lane about 25 feet from the pillar. Another car had been following about 100 feet behind at the same speed, estimated at 50 to 60 mph. Its driver locked his brakes in the attempt to stop, but he hit the airman's car in the right rear. The two cars stopped side by side about 45 feet from the downed concrete pillar. The airman was killed. His Blood Alcohol Test measured .17.

SPEED

A sergeant was returning to his base at about 1800. He was traveling about 45 mph when he entered an S-curve in the road. Because of the excessive speed, he went off the road in a counterclockwise skid. The front tires hit the dirt and the car rolled three to four times and landed on its roof. The sergeant's injuries resulted in a permanent total disability.

7 miles to go

by TSgt. DAN LITTLE
K.I. Sawyer AFB, Mich.

The sign by the accident read, "K.I. SAWYER 7 MILES." The base hospital report stated "Dead on Arrival." The young Air Force sergeant did not make it back from leave. Let's examine his background and the circumstances leading to the accident.

The sergeant was 22 and had been driving a car since he was 16. He was confident in his driving ability and had only one speeding ticket on his record. He almost always wore his seat belt.

He left Dayton, Ohio, at six o'clock that morning. It had been a good leave. The sergeant had spent a lot of time with his family and had run into some of his old high school friends. As he left the suburbs of Dayton and headed north on I-75 he checked his speedometer. "Might as well keep it at 55," he thought. "No need getting a ticket so close to home." He had settled into a good safe rhythm and arrived in Saginaw, Mich., around noon. The trip was almost half over. He stopped for a short break and sandwich.

As the trip progressed, he thought about his friends back at the base. In a few weeks, some of the gang were going to Iron Mountain for a ski weekend. His night class with Northern Michigan University would be starting in a few days. As these thoughts ran through his mind, he became more anxious about getting back to base. He calculated that if he started driving 65 instead of 55 he might make it back about an hour early. By the time he arrived at the Mackinac Bridge, he was 40 minutes ahead of schedule.

He gassed up and climbed into his car. He did not bother with his seat belt. "Don't need that, I'm almost home," he thought. He headed west on Highway 2 toward Escanaba. The speedometer showed 67 miles an hour. He realized he was taking a chance driving that fast, but he was not concerned because he felt that his driving abilities could protect him.

Arriving at Rapid River he turned north onto US-41. The gas pedal moved closer to the floorboard. Driving by Trenary he noticed icy patches on the road and slowed down a little.

A few minutes later the roads looked better so he built his speed back up. He glanced at his watch and smiled. Cresting the small rise in the road prior to the turn off to the back gate he noticed a car coming in the other lane. "No problem," he said out loud and he gave the gas pedal a tap. He beat the other car to the intersection and started his left turn. He was going a little too fast so he hit his brakes . . .

The report the base commander received the next day reported the cause of the fatality as excessive speed and icy roads. The report revealed he wasn't wearing his seat belt at the time of the accident.

Fortunately this story is fictitious and will remain so, but could this have been about you? Do you drive the speed limit *most* of the time? Do you wear your seat belt *most* of the time? Practice your safe driving habits *ALL* of the time. You are too important to your family and friends to lose.

PRE-OPERATION INSPECTION

Before driving any car or truck you should conduct a pre-operation inspection to ensure the vehicle is in proper and safe operating condition. The February 1985 DRIVER article "Avoiding the Horns of a Dilemma" covered the visual inspection that should be done before driving. Now it's time for the pre-operation service inspection.

Make sure the tires have the correct air pressure. Be sure to replace any missing valve caps. Also, is there a working jack, useable lug wrench and serviceable spare tire?

Remove objects such as glass, sharp stones, wire, etc. from the tread. However, leave the removal of nails, screws, etc. to professionals.

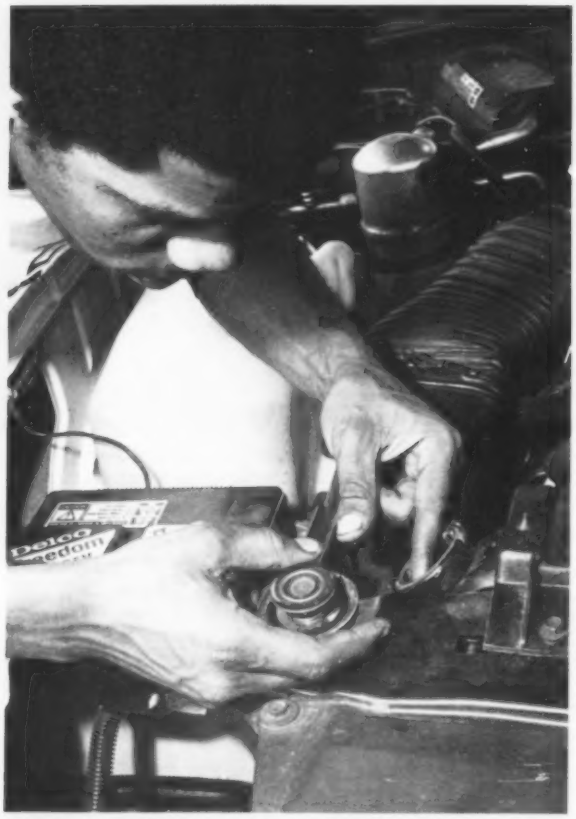
Check tires for at least 2/32-inch good tread (the distance between the top of a penny and Lincoln's head if you don't have a gauge).

Inspect the brake pedal for free travel. While the pedal should have some free travel it should not exceed ½-inch. Also, inspect the parking brake for operation and effectiveness.

Check level of hydraulic fluid in master cylinder reservoir.

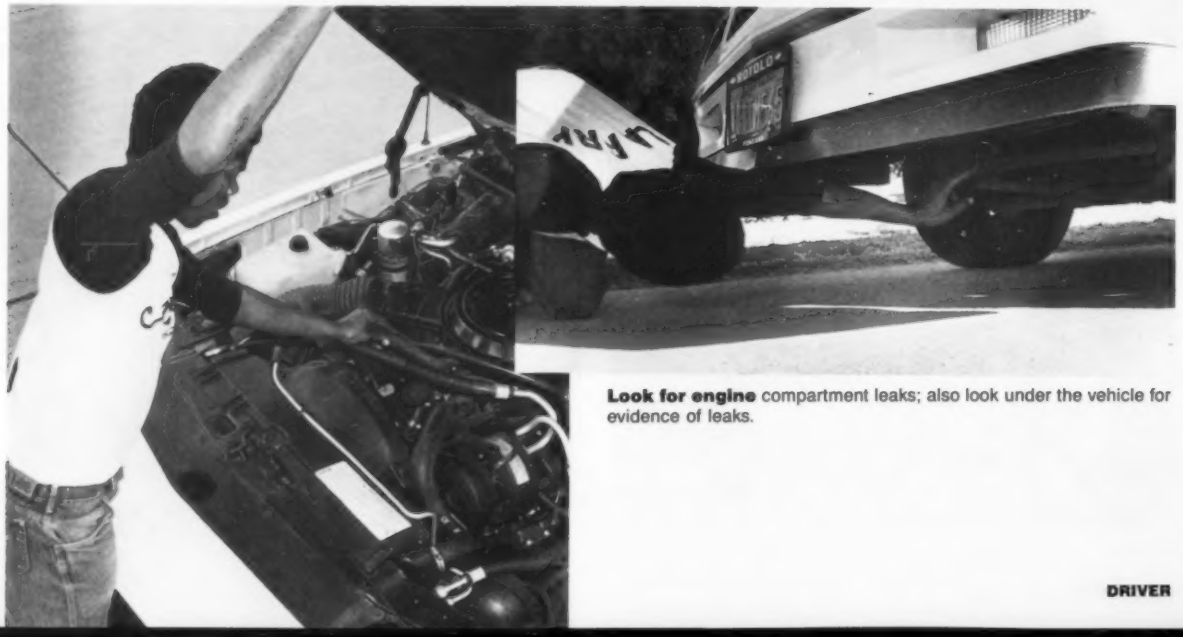
Check oil level and bring up to correct level.

continued



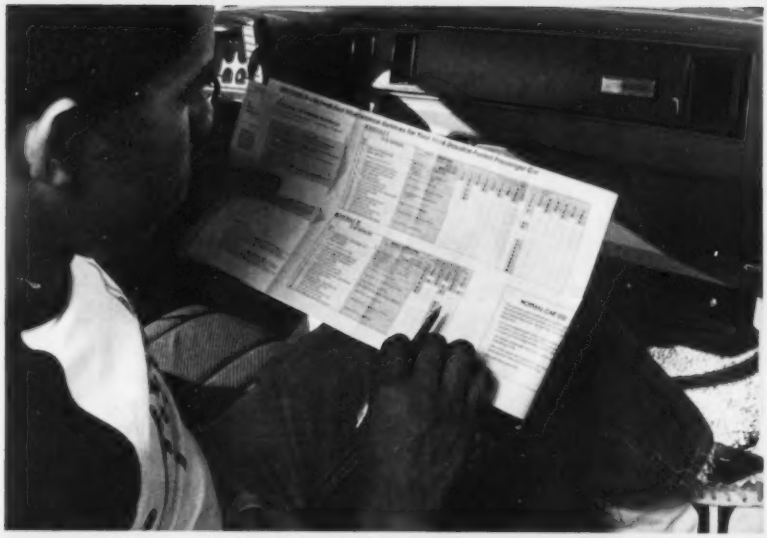
Check coolant level and bring up to correct level.

Make sure all the hoses are in good condition.

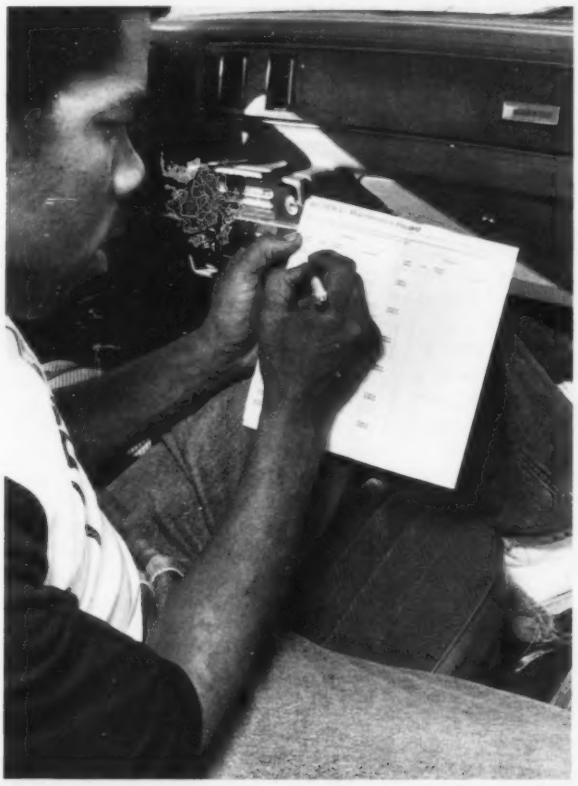


Look for engine compartment leaks; also look under the vehicle for evidence of leaks.

Inspect belts for deterioration, wear and proper tension. Belts should deflect about ½-inch with thumb pressure mid-way between the widest spaced pulleys for security and proper alignment.



Make sure the lubrication and oil changes have been accomplished at the established (miles or months) intervals.



After driving, note any unusual vibrations, noises, odors, abnormal instrument readings, erratic brake and steering operations and other indications of vehicle malfunctions. Then you should correct these deficiencies before operating the vehicle again.

Inspect battery fluid level, terminals, clamps, holddown, etc. for security and corrosion. Clean, tighten or add water as necessary. Don't forget to fill the windshield washer reservoir also.

Many defects, especially leaks, are more apparent after the vehicle has been parked overnight.

BACKFIRE

LETTERS to the EDITOR

Address your letters to:

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OBSERVATIONS ON THE COMMUTER 500

I owe, I owe, so it's off to work I go . . . to parody the Seven Dwarfs classic tune. Well I truly LOVE commuting to work each day. Part of it is the death-defying challenge of getting there and back without damaging myself or another commuter.

During these excursions I've taken to observing my fellow drivers as we negotiate the myriad of traffic hazards each day. Recently, I became more aware of a very sinister form of the "accident looking for a place to happen." What? Another threat you say? What more could be added to the current list of inclement weather, pedestrians, potholes, drunks/druggies, and the like? The answer, fellow commuters, is primarily one of vanity!

Take your own survey! It'll reveal a significant number of drivers each morning with their attention riveted to their sunvisor or rearview mirrors rather than on the road ahead. I've watched in awe as all manner of lipstick, blush, mascara and eyeliner is applied enroute. Frantic hands frizz, tease, pat, pick and puff hair, while others tie ties, operate electric razors, earphone equipped stereo tape players, CB's and car phones. I might add that many of these activities are combined with smoking, map or newspaper reading, plus various forms of food intake to include coffee, soda and various breakfast munchies. Drivers of both sexes do it. I'll bet you can't guess how many of these folks aren't wearing seat belts either!

Nearly everyone appreciates a neat appearance but let's remember that beauty is only skin deep. That rearview mirror you reposition to touch up your hair, check a shaving nick, or apply lipstick, all while rolling along could ruin your looks in a sudden collision. Peeling people's faces off of windshields is grim work that cops and paramedics deal with every commuting day. Inattention is a major cause of many commuter accidents.

Collisions, even at slower "rush hour" speeds, can result in facial rearrangement that give plastic surgeons and undertakers real job security. Rather than ruin the day for everyone, plan ahead. Rise early enough to read your paper at home, complete your grooming in the bathroom, and have your breakfast at the table, not behind the wheel! If you need a little touch up, hit the restroom before you clock-in. By giving the "Commuter 500" your full attention, we all get to work with one less hazard to face, ready to take care of business upon arrival!

Capt. Robert DeCubellis, USAF
McClellan AFB, CA 95652

INTERNAL DISTRACTION

Internal distraction is a human factors term which defines a situation in which there is an interruption of attention by a non-task related mental process. For illustration, three examples are provided to identify with different work situations in the Air Force. For a fighter pilot, internal distraction could be provided by thoughts about an evening's relaxation while still taxiing prior to engine shutdown. Or for a driver, an example might be thinking about a talk-radio discussion while inadvertently approaching too close to a decelerating auto in front. And finally, for a Xerox 860 driver, it might mean thinking of lunch and turning off the machine on 20 typed pages without first touching the store button.

Simply stated: Internal distraction is not thinking about what you are doing. Ask any teacher if children ever daydream! Not all dreaming is bad, and sometimes creative thinking can occur quite spontaneously. It is a worthwhile process if it happens while one is not otherwise occupied by serious business.

In a recent ground accident, the unbelted victim slid across the front seat off of the controls of his car. Swerving to avoid impact (very common) threw him off the brake pedal and steering column before the crash. There was a characteristic interruption of skid marks on the roadway. The investigating police officer succinctly summed up the tragedy this way: "Two counts of internal distraction; with side deceleration displacement effects. The side, or lateral deceleration, when he hit the brakes pulled him off the brake and steering columns. Of course the *first* count of internal distraction was when he *failed* to hook up his seat belt. And the second was in allowing himself into a situation where he could not stop in time."

Are you a professional? Professional drivers and flyers are prepared for any impact. Hook em up! Drive alertly!

Col. Rich Pilmer, USAF
Scott AFB, IL 62225

SAFE DRIVING TIP

Thirty years ago I read a safe driving tip that I've never seen in print since. It might have prevented two fatal accidents I've recently read about.

In Accident A, DRIVER rightly emphasized how a seat belt would have saved the most precious thing a young man ever had, his wife's life. That applied to all accidents, and a technical safe driving tip there would have distracted from the more important message. The accident happened when the car drifted off the road, and the driver swerved sharply to get back on.

Accident B caused one death and many injuries. A truck carrying 21 passengers in the back similarly went out of control when the driver swerved to get back on the road. The driver, a member of another military service who reportedly was also speeding, is now being court-martialed.

If you ease up on the gas and hold the wheel loosely, you can safely steer with one wheel off the road while the car slows down. When you have good control, you ease gently back on the road. This trick really worked the four or five times I had to use it, and it was the first thing I taught my kids when they were learning to drive.

Ted Prahlnski
Andrews AFB, DC 20334

This is an important tip every driver should keep in mind. We try to work it into the magazine once or twice a year to catch the young people just coming into the service who haven't been driving long.

VAN NOT A CAR

Reference the January 1985 issue, back page, "A Pain in the Neck." You imply that "all passenger cars made after Jan 1, 1969" must have head restraints. Why does the standard seat on the 1985 Plymouth Voyager (mini-van) *not* have a head restraint? It is certainly designed primarily for passengers.

Sgt. David L. Searcey, USAF
Fairchild AFB, WA 99011

While you're right about the vehicle being designed primarily for carrying passengers, the law still distinguishes it from a car. As a van it does not have to meet the same safety standards a car does. This probably explains the popularity of after-market captain's seats in such vehicles.

TIRE ROTATION UPDATE

A copy of your January issue just crossed my desk — but not so fast that I didn't get a good look at your tire safety and inspection feature stories — both excellent pieces that contained a lot of timely and helpful information.

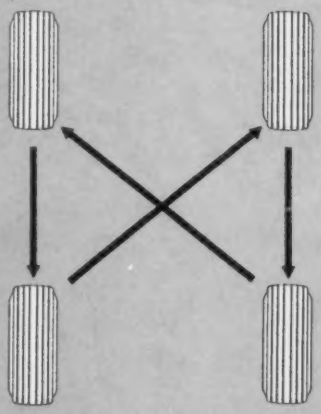
One item that I wanted to update you on is tire rotation. We've done quite a bit of wear testing on both front-wheel-drive and rear-wheel-drive vehicles recently, both in actual highway usage and at our San Angelo, Texas, Proving Grounds. Our conclusion: *do* rotate — in an X-pattern for both types of vehicles — front and rear drive.

Quite simply, X tires from the non-drive axle to the drive axle, then move the other two forward or backward, as the case may be. For example, for front-wheel-drive, the left rear goes to the right front, the right rear goes to the left front, and the two front tires go straight back. The reverse would be true for rear-wheel-drive vehicles.

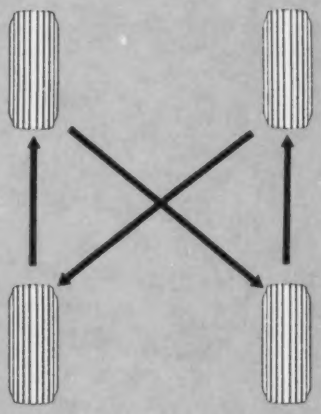
Dave Russ
Sr PR Representative
Goodyear Tire

TIRE ROTATION PATTERNS

FRONT-WHEEL-DRIVE VEHICLES



REAR-WHEEL-DRIVE VEHICLES



In both cases, "X" non-drive-axle tires to the drive axle. Remaining tires go straight to the front or rear accordingly.

Courtesy of GOODYEAR

OLD FOGIES?

In the January 1985 issue, under True Accidents, you printed an article concerning "hot rodding." In short, I believe you have absolutely no knowledge whatsoever what the term "hot rodding" means! I imagine you are simply an old fogie who believes that anyone who drives *fast* is a hot rodder. I pity your ignorance.

Wayne L. Kuban
Davis-Monthan AFB, AZ 85707

Our dictionary defines hot rodding as not only fast but also reckless driving, and "reckless" is what we would call driving in which the car becomes airborne, as was the case in this accident.

However, please don't get the idea that DRIVER might be against those who modify cars into hot rods. We think it's a fun and worthwhile hobby, in that sense. In the sense of reckless driving, we are against it.

And by the way, we certainly don't believe everyone who drives fast is a "hot rodder."

☆U.S. GOVERNMENT PRINTING OFFICE: 1985— 583-031

THE SAFETY CHEF

"A watched road never surprises."

RECIPE

Remove obstacles from around automobile
Open one (1) door
Fold in one (1) occupant; garnish with seatbelt and shoulder harness (serve each occupant with seat belt or child seat, as appropriate)
Fire up engine; set aside to warm
While warming engine:
  Mold seat for occupant's comfort
  Arrange mirror(s)
  Mix in heat or air conditioning, to taste
Place automobile on street
Add speed gradually, to posted limit (or lower, according to traffic/weather conditions)
Blend into traffic
Watch other automobiles' movements
  Observe mirrors
  Keep eyes moving
  Be ready to turn, stop or avoid hazards
When automobile reaches desired destination, reduce speed, remove from street, turn off automobile
Separate seat belt; remove occupant
Close automobile: let stand until cool
Re-heat for each re-use
(Serves all)